

REMARKS/ARGUMENTS

Claims 16, 20, 22, 23, 29, and 31-37, 39-43, 45-46, 49 and 51 are pending in this application. Claims 16 and 49 were allowed, although the Examiner recommended amendments to claim 16 which Applicants have incorporated herein. Claims 16, 20, 31, 36, 39, 42, and 46 have been amended. It is respectfully submitted that the amended claims are fully supported in the specification as filed and that no new matter has been added.

Rejection under 35 U.S.C. §112 second paragraph

Claims 20, 22, 23, 29, 31-37, 39-41 and 51 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

In particular, the Examiner avers that in claim 20, the relationship of the stained red blood cells to a "group" of those of step (a) are not clear, and the Examiner suggested -first-and -second-"reagent red blood cells" in claim 16; and, in claim 20, --wherein one of said first or second reagent red blood cells are distinguishably stained--.

The Examiner further avers that in claim 29 and claims dependent thereon, the interrelationships of the components are not clear because the relationship of imaging analysis of the column to imaging analysis of the admixture is not clear, and the Examiner suggested in claim 16, "subjecting the admixture" -in the single column--.

The Examiner further avers that in claims 31-35 and 51, it is not clear what is being determined because the interrelationships of antigens borne on the cell populations to ABO type determined in step d) are not clear, as the interrelationships of the components are not clear because the relationship of imaging analysis of the column to imaging analysis of the admixture is not clear, and the Examiner suggested in claim 31, "subjecting the admixture" --in the single column--.

The Examiner avers that claims 39-41 depend from a canceled claim.

Finally, The Examiner avers that in claims 36, 37 and 39-41 (assuming dependency of claims 39-41 on claim 36) the interrelationships of the steps, and components are not clear, for example because: the relationship of the antibody to sample or admixture is not clear; and, the relationship of antibody to first or second antigen or to agglutinate is not clear. Moreover, in claim 39 and claims dependent thereupon, the interrelationships of the components are further not clear because the relationship of imaging analysis of the column to imaging analysis of the admixture is not clear because it is not clear that the analysis occurs with the admixture in the single column, and the Examiner therefore suggested in claim 36 "subjecting the admixture" -in the single column--; or, --steps (a) through (c) are performed - in step (d) of claim 36.

Applicants have made the suggested amendments to all of claims 16, 20 and 31, and have corrected the dependency of claims 39-41 on pending claim 36, as well as made the suggested amendment to claim 36.

Applicants respectfully submit that the amendments made hereto and in accordance with the suggestions of the Examiner fully addresses the rejection and that the rejection might respectfully be withdrawn. Alternatively, if the Examiner perceives a continuing issue in this respect, Applicants respectfully request that the Examiner contact Applicants' undersigned attorney by telephone to discuss.

Rejection Under 35 USC 102(b)

Claims 42, 43, 45 and 46 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ullman (U.S. Pat. No. 4,584,277) in light of Briggs (U.S. Pat. No. 4,564,598) for reasons similar to those of record.

The Examiner avers that Ullman teaches performance of the method in an apparatus (see e.g. Cols 6-7) disclosed in a copending application which matured into the patent of Briggs, and that in light of Briggs, Ullman intended the reaction means as a single sample holding means specifically taught in Briggs as a "flow tube" (see eg. col. 7) which it is averred meets either the instant tube of column limitation.

Applicants traverse the rejection for the reasons that Briggs and Ullman are directed to measurement of

light scatter or fluorescent flow particle analysis. See Ullman at col. 4 line 56- col. 5 line 12. For example, Ullman discloses that for simultaneous measurement, one would employ a detection means which permits differentiation of the different wavelengths resulting from the fluorescers, and as appropriate, light scatter from each individual particle. (See Ullman at col. 6 lines 8-12). The sample holding means mentioned (col. 6 line 64) is used for fluorescence or light scatter through which excitation light such as lasers is passed, and which emission light is then read at a detector (Ullman at col. 6 line 64-col. 7 line 25).

Briggs is further related to detection of fluorescence intensity using irradiation of a dispersion with excitation light and measurement of emission light by a detector. The sample for such fluorescing measurements may consist of a flow tube (Briggs at col. 7 line 30) containing an optical fiber through which, after mixing of sample and reagents, the admixture may be passed.

Applicants' invention employs a detection system that consists of a charged coupled device camera, a digitizing board and image processing software to extract reaction features and classify the result. See specification at page 9 lines 5-23. These features are used for translation into conventional reaction classes. Thus, as distinguished from the fluorescence and light scatter systems of Ullman and Briggs, the instant invention as made clear by the amended claims is directed

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to using a charged coupled device camera and a digitising board to detect and identify the antibody.

Therefore, it is Applicants' strong position that nothing in Ullman when combined with Briggs teaches or suggests Applicants' invention as in claims 42, 43, 45 and 46, and thus respectfully request the rejection be withdrawn and the amended claims be allowed.

For the above-stated reasons and in light of Applicants' amendments made herein, it is respectfully submitted that the claims are patentable over the rejections and art cited. Applicants therefore respectfully request that the rejections be withdrawn and the claims be allowed.

Please charge all fees due in connection with the filing of this Amendment to Deposit Account No.10-0750/CDS0221USNP/CKG in the name of Johnson & Johnson.

Respectfully submitted,

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